and too little clear delineation of principles. Long passages on work now not even of historical interest could have been omitted with a consequent most desirable shortening (and cheapening?) of the book. For example, the attempt to make intelligence ratings of members of royal families is now merely a joke. Sometimes (as on pages 219 and 220) the string of references to research items leaves a contradiction (actual or only apparent) unresolved.

There is some evidence of hurried writing. The term "recessive" is sometimes applied to genes instead of, as it should be, to conditions. On pages 139 and 140 the words "tactic", "taxic" and "tropic" are all used where "tactic" conforms to current usage.

Nevertheless many research workers, including this reviewer, will be grateful to the authors for their lucid accounts of a great diversity of valuable researches and for the vast bibliography.

S. A. BARNETT

Hadorn, Ernst. Translated by **Ursula Mittwoch.** *Developmental Genetics and Lethal Factors.* London, 1961. Methuen. Pp. xviii + 355. Price 52. 6d.

GENETICISTS AND EMBRYOLOGISTS with little German should be grateful to Dr. Mittwoch for translating this important book into English. It has been an invaluable work of reference ever since it came out in German in 1955. The English version can be regarded as a new edition, for Professor Hadorn has brought the book up to date by incorporating the results of much work carried out since then. Though the book is primarily written for the specialist it should be of great use to students too.

Developmental genetics or the study of the role of genes in development is often treated as a poor relation of formal genetics, and seldom gets the attention it deserves. In practice it is almost synonymous with developmental pathology, for most detectable mutations are deleterious. In studying the pathological development, however, we learn a lot about normal development, because our attention is drawn to processes that might otherwise remain obscure. Professor Hadorn's book is not concerned with all kinds of deleterious mutations: it deals only with those factors that cause the death of an organism before it begins to reproduce. Point mutations, chromosomal deficiencies, duplications and inversions, all come within the scope of the term "lethal factor" Professor Hadorn has marshalled an impressive amount of material. Most of it is, of necessity, taken from experiments on animals, but plants and man are by no means neglected. All aspects of the subject are dealt with. The data are systematically arranged, and the exposition is simple and clear. There is an excellent glossary of terms at the end—a necessary part of the book, since several terms are either new or used in a new sense.

In the beginning of the book Professor Hadorn points out with justifiable emphasis the need for care and the respect due to etymology in the coining of new terms. It is all the more regrettable, therefore, that some of his own efforts in this direction should be open to criticism: for instance, the English word "lethal" has no connection with the Greek "Lethe" in spite of its "h", and the term "unconditional lethal factor" should be "unconditionally lethal factor", for surely "unconditional" here is an adverb qualifying the adjective "lethal" and not another adjective qualifying the noun "factor".

M. S. DEOL

Wallace, Bruce *and* **Dobzhansky, Th.** *Radiation, Genes and Man.* London, 1960. Methuen. Pp. xii + 205. Price 18s.

THIS is an excellent book on a subject that is not only very much in the news at present but is sure to remain so for a long time to come. The question of the genetic effects of radiation has given rise to a number of extremely acrimonious disputes, mainly because in the minds of most people it has become inextricably mixed with the testing of nuclear weapons. It is generally treated as an ethical question with faintly scientific overtones. The fact that the strength of the moral argument depends on its scientific foundation is frequently disregarded. Even when scientists join the controversy they tend to ignore its scientific aspect. The result has been a spate of contradictory statements, all said to be "authoritative".

Professors Wallace and Dobzhansky have followed the best way out of this confusion.